

SYLLABUS OF THE EDUCATIONAL COMPONENT



CLINICAL DIAGNOSIS OF ANIMAL DISEASES

specialty	211 Veterinary medicine	mandatory discipline	mandatory
educational program	«Veterinary medicine»	faculty	veterinary medicine
educational level	master	department	internal diseases and clinical diagnosis of animals

TEACHER

Vikulina Galina Viktorivna



**Higher education – master of veterinary medicine, master of higher education pedagogy, master of philology
Scientific degree - candidate of veterinary sciences, specialty 16.00.01 - diagnosis and therapy of animals, doctor of philosophy**

Academic title - associate professor

Work experience - 16 years

Indicators of professional activity on the subject of the course:

- author and co-author of about 60 scientific publications;
- co-author of the textbook "Veterinary Clinical Biochemistry" (2010)
- experience of scientific work of 19 years;
- participant of scientific and methodical conferences.

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GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

Aim	is to study of clinical examination methods used in the diagnosis of diseases of different etiology - internal, surgical, gynecological, infectious, parasitic, and is therefore the basis of all subsequent clinical subjects: internal diseases, obstetrics, surgery, epizootology and parasitology
Form	lectures, laboratory classes, independent work, individual tasks.
Detailing of learning results and forms of their control	<ul style="list-style-type: none"> • The task of studying the discipline is based on diagnosis, because treatment and the prevention of any disease is preceded by its recognition, and its staging diagnosis, regardless of the cause of the disease, is carried out guided by the same methods and principles that are outlined in the clinical course diagnostics. • The subject of study of the academic discipline is the necessary theoretical knowledge and practical skills on the technique of obtaining biological material and preparing it for biochemical research, the selection of biochemical indicators and their subsequent interpretation. • Clinical diagnosis, being the basis of other clinical subjects, itself at the same time is based on the foundation of general theoretical ones disciplines - anatomy, physiology, pathological physiology, dialectics, biochemistry, without knowledge of which it is impossible to successfully master this subject.
Scope and forms of control	10 ECTS credits (300 hours): 30 hours of lectures, 92 hours of laboratory classes; 118 hours of independent work, current control (8 chapters); final control – exam; course work; credit from educational practice.
Requirements of the teacher	timely completion of tasks, activity, teamwork
Enrollment conditions	according to the curriculum

COMPLIANCE WITH THE EDUCATION STANDARD AND EDUCATIONAL PROGRAM

Competencies	<p>GC1. Ability to abstract thinking, analysis and synthesis. GC2. Ability to apply knowledge in practical situations. GC7. Ability to conduct research at an appropriate level. GC8. Ability to learn and master modern knowledge. GC9. Ability to make informed decisions.</p> <p>SC1. The ability to establish the features of the structure and functioning of cells, tissues, organs, their systems and body apparatuses of animals of various classes and species - mammals, birds, insects (bees), fish and other vertebrates. SC2. The ability to use tools, special devices, devices, laboratory equipment and other technical means to carry out the necessary manipulations during professional activities. SC 3. The ability to observe the rules of labour protection, asepsis and antiseptics during professional activity. SC 4. The ability to conduct clinical research in order to formulate conclusions about the condition of animals or establish a diagnosis. SC6. Ability to select, pack, fix and send samples of biological material for laboratory research. SC7. Ability to organize and conduct laboratory and special diagnostic studies and analyze their results.</p>	Program learning outcomes	<p>PLO 1. Know and correctly use the terminology of veterinary medicine PLO 4. Collect anamnestic data during registration and examination of animals, make decisions regarding the choice of effective methods of diagnosis, treatment and prevention of animal diseases PLO 5. To establish a connection between the clinical manifestations of the disease and the results of laboratory studies</p>
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STRUCTURE OF THE EDUCATIONAL COMPONENT

Lecture 1	Clinical diagnostics as a science, its purpose and tasks at the current level of animal husbandry development	LPC 1	Security and personal hygiene in the studied animals	Independent work	Features of the study of small pets.
Lecture 2	Recognition of the disease and prediction of its course and end	LPC 2-3	Plan and methods of clinical examination of animals		Rash. Pathological changes of the skin and subcutaneous tissue; name the elements of primary and secondary rashes and pathological changes of the skin and give them a clinical description.
Lecture 3	Thermometry and fever	LPC 4-5	Definition of animal habitus and skin research		Physiological indicators of body temperature in different species of animals.
Lecture 4	Study of the cardiovascular system and its importance in assessing the state of the animal body	LPC 6-7	Examination of visible mucous membranes and lymph nodes		Thermometry and its importance in veterinary diagnostics. Fever
Lecture 5	Study of heart murmurs	LPC 8-9	Determination of basic physiological parameters in animals		Topography of the heart (its boundaries) in different species of animals and methods of their determination.
Lecture 6	Research of respiratory movements and upper respiratory tract	LPC 10	Determining the boundaries of the heart and the study of heartbeat		Heart murmurs are their characteristics
Lecture 7	Auscultation of the lungs	LPC 11-12	Examination of heart tones		The main syndromes of cardiovascular insufficiency.
Lecture 8	The value of the study of the digestive system	LPC 13-14	Detection of heart murmurs and their diagnostic evaluation		Classification of cardiac arrhythmias (list all arrhythmias depending on the violation of basic heart functions)
Lecture 9	Liver examination	LPC 15	Research of arterial pulse and blood vessels		Functional tests and their practical use.
Lecture 10-11	Clinical significance of the study of urinary organs in animals	LPC 16	Electrocardiography		Laboratory methods for diagnosing heart disease
Lecture 12	The value of hematological studies in the diagnosis of animal diseases and in assessing the state of natural resistance	LPC 17	Functional diagnosis of the heart		The main syndromes of pathology of the respiratory system
Lecture 13	Diagnosis of disorders of protein, carbohydrate, lipid, water-electrolyte metabolism	LPC 18	Examination of respiratory movements in animals		Pathological rhythms of respiration and their clinical evaluation.
Lecture 14	Tasks and significance of veterinary X-ray diagnostics at the present stage of animal husbandry development	LPC 19-20	Examination of the upper respiratory tract		Classification of respiratory noises.
Lecture 15	The value of the study of the nervous	LPC 21-22	Examination of the chest and		Pathological respiratory noises at bronchitis, pneumonias and pleurisies their clinical

	system as the leading system of the body		determination of the physical condition of the lungs		characteristics.
		LPC 23-24	Clinical evaluation of primary and secondary respiratory noises		The main syndromes in pathology of the digestive system.
		LPC 25	Plegaphony, thoracentesis, sputum examination		Reticulitis tests.
		LPC 26-27	Examination of feed and water intake		Classification of colic in horses.
		LPC 28	Examination of rumen and reticulum in ruminants		Scheme of fecal examination and basic indicators in healthy animals
		LPC 29	Research of omasum, abomasum and intestines in ruminants		The main syndromes in liver disease.
		LPC 30-31	Research of stomach and intestines in horses, pigs, dogs		Indicators of urinary frequency and urine output.
		LPC 32	Animal intubation		Features of the study of horse urine.
		LPC 33-34	Liver examination. Rectal examination of animals		The scheme of the study of urine and the main indicators in healthy animals.
		LPC 35	Examination of the act of defecation and feces		The main syndromes of lesions of the urinary system.
		LPC 36-37	Examination of the kidneys, ureters, urinary tract and urethra		Physiological properties of blood and their clinical significance.
		LPC 38	Urine tests		Evaluation of clinical blood test results based on research results
		LPC 39	Study of the state of the somatic nervous system		Evaluation of indicators of biochemical analysis of blood according to research results.
		LPC 40	Study of the state of the autonomic nervous system		The main clinical syndromes of metabolic diseases.
		LPC 41	Determination of ESR, hemoglobin and erythrocytes		Diagnosis of endocrine pathologies in animals
		LPC 42	Determination of the number of leukocytes. Derivation of the leukogram		The main properties of X-rays.
		LPC 43-44	Determination of biochemical parameters of blood		Types of X-ray machines.
		LPC 45	Radioscopy		Major diseases that require X-ray examination.
		LPC 46	Radiography		The main syndromes of diseases of the nervous system.
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BASIC LITERATURE AND METHODOLOGICAL MATERIALS

Jackson P. G. G. et al. Clinical examination of farm animals. – Oxford : Blackwell Science, 2002.

Dirksen G. et al. Clinical examination of cattle. – Verlag Paul Parey, 1990. – №. Ed. 3.

Radostits O. M. et al. Veterinary clinical examination and diagnosis. – WB Saunders, 2000.

Constable P. D. Clinical examination of the ruminant nervous system //The Veterinary clinics of North America. Food animal practice. – 2004. – T. 20. – №. 2. – C. 185-214, v.

Abdisa T. Review on practical guidance of veterinary clinical diagnostic approach //International Journal of Veterinary Science and Research. – 2017. – T. 3. – №. 1. – C. 030-049.

Bagley R. S. Fundamentals of veterinary clinical neurology. – Blackwell Pub., 2005.

Douglas G., Nicol F., Robertson C. (ed.). Macleod's Clinical Examination E-Book. – Elsevier Health Sciences, 2013.

Hill P. B. et al. Survey of the prevalence, diagnosis and treatment of dermatological conditions in small animals in general practice //Veterinary record. – 2006. – T. 158. – №. 16. – C. 533-539.

Veterinary Clinical Procedures in Small Animal Practice, Vicki Judah – 2014 – 418 p.

Performing the Small Animal Physical Examination Ryane E. Englar, DVM, DABVP (Canine and Feline Practice) – 2017 – 1221 p.

Bowen J., Heath S. Behaviour problems in small animals: practical advice for the veterinary team. – Elsevier Health Sciences, 2005.

Braun J. P. et al. The preanalytic phase in veterinary clinical pathology //Veterinary Clinical Pathology. – 2015. – T. 44. – №. 1. – C. 8-25.

Roudebush P. et al. Application of evidence-based medicine to veterinary clinical nutrition //Journal of the American Veterinary Medical Association. – 2004. – T. 224. – №. 11. – C. 1766-1771.

Robinson N. J. et al. Investigating common clinical presentations in first opinion small animal consultations using direct observation //Veterinary record. – 2015. – T. 176. – №. 18. – C. 463-463.

Widmer W. R., Biller D. S., Adams L. G. Ultrasonography of the urinary tract in small animals //Journal of the American Veterinary Medical Association. – 2004. – T. 225. – №. 1. – C. 46-54.

Hodges B. D. The objective structured clinical examination: three decades of development //Journal of Veterinary Medical Education. – 2006. – T. 33. – №. 4. – C. 571-577.

Hinchcliff K. W., Byrne B. A. Clinical examination of the respiratory system //Veterinary Clinics of North America: Equine Practice. – 1991. – T. 7. – №. 1. – C. 1-26.

Ohlerth S., Scharf G. Computed tomography in small animals–Basic principles and state of the art applications //The Veterinary Journal. – 2007. – T. 173. – №. 2. – C. 254-271.

Tyrrell D., Beck C. Survey of the use of radiography vs. ultrasonography in the investigation of gastrointestinal foreign bodies in small animals //Veterinary radiology & ultrasound. – 2006. – T. 47. – №. 4. – C. 404-408.

Tams T. R., Rawlings C. A. Small Animal Endoscopy-E-Book. – Elsevier Health Sciences, 2010.

Radostits O. M. et al. (ed.). Veterinary Medicine E-Book: A textbook of the diseases of cattle, horses, sheep, pigs and goats. – Elsevier Health Sciences, 2006.

Willard M. D., Tvedten H. Small Animal Clinical Diagnosis by Laboratory Methods-E-Book. – Elsevier Health Sciences, 2011.

Methodical support

ELECTRONIC RESOURCES

<http://moodle.btu.kharkiv.ua/course/view.php?id=425>

Bellwood, Brianne. Veterinary technician's handbook of laboratory procedures / Brianne Bellwood, Melissa Andrasik-Catton, 2014. – 201 p.

EVALUATION SYSTEM

	System	Score	ACTIVITY TO BE EVALUATED
Final assessment	100 point ECTS (standard)	to 100	50 % - final testing 50 % - current work of the student
Rating of section	100 points total	to 70	answers to test questions
		to 20	independent work
		to 10	student activity in classes

NORMS OF ACADEMIC ETHICS AND CHARITY

All participants in the educational process (including those seeking education) must adhere to the code of academic integrity and the requirements prescribed in the provision "On academic integrity of participants in the educational process of DBTU": show discipline, education, respect each other's dignity, show kindness, honesty, responsibility.